B-1621

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7009 1410 0000 0625 4445

OE 061-10

ILD 041 550 567

CITGO Petroleum Corporation

135th Street & New Avenue
Lemont, IL 60439-3659

June 4, 2010

Mr. Steve Nightingale, P.E. Manager
Permit Section
Bureau of Land
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, IL 62794-9276

Intent to Close Land Treatment Facility

Dear Mr. Nightingale:

This is in response to recent discussions between Rob Watson of the IEPA and Kevin Moss of the CITGO-Lemont Environmental Department concerning renewal of the RCRA permit for the Lemont Refinery. Specifically, the CAMU option at the Land Treatment Facility (LTF) as outlined in the original RCRA permit will not be pursued. Based on the information gained during the past several years of Corrective Action (CA) investigations it has been determined that a CAMU will likely not be needed to manage CA wastes. Therefore, the intent of the refinery is to proceed to closure of the LTF and not pursue the CAMU option.

As discussed a formal withdrawal of the CAMU permit modification request is not needed (or requested) at this time.

If there are questions or if additional information is required, please contact Kevin Moss at (630) 257-4452 or me at (630) 257-4450.

Sincerely,

C. W. Harmon

C. W. Harmon, Manager
Health, Safety, Security & Environmental

KJM/PLM

CERTIFIED MAIL
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June 9, 2010

Stephen F. Nightingale, P.E.
Manager, Permit Section, Bureau of Land
Illinois Environmental Protection Agency
Bureau of Land - #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

RECEIVED
JUN 14 2010
IEPA-BOL
PERMIT SECTION

1978030004 – Will County
Lemont Refinery
ILD 041 550 567
Log. No.: B-162R
Supplemental Information in Response to IEPA Requests

Dear Mr. Nightingale:

On April 23, 2007, a Resource Conservation and Recovery Act (RCRA) Part B Permit Renewal Application (Renewal Application) was submitted for the CITGO Petroleum Company, LLC, Lemont Refinery (the Refinery). The supplemental information provided is in response to April 20, 2010 and May 14, 2010 email requests. The specific requests included:

- **A map added to the Corrective Action section of the Permit Application (Section K) "…that details all the pertinent information regarding the corrective action activities at the site (GMZ, remedial activities (such as the French Drain, groundwater recover wells, skimmer wells etc.), GWM wells, piezometers, surface water gauges, etc.)."**

- **An additional table of information to be added to Section K regarding construction details for monitoring wells included in the Site Wide Groundwater Monitoring Program**

- **Corrections to the Table of Contents for Tables in Section I**

In addition to these changes, several associated editorial revisions were included. These revisions include updating Section 4.0 of the Introduction as well as additions to several Tables of Contents.

Attachment 1
Replacement Pages

RENEWAL PART B PERMIT APPLICATION
VOLUME 1, COVER PAGE

Remove Cover Page
and replace with the attached Cover Page.

RCRA PERMIT RENEWAL APPLICATION
THE LEMONT REFINERY
CITGO PETROLEUM CORPORATION

Lemont, Illinois

Submitted by:

The Lemont Refinery

April 23, 2007
Revised July 31, 2007; August 10, 2007; June 3, 2010

RENEWAL PART B PERMIT APPLICATION
VOLUME 1, TABLE OF CONTENTS

Remove Table of Contents
and replace with the attached Table of Contents.

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RENEWAL PART B PERMIT APPLICATION
VOLUME 1, INTRODUCTION

Remove page 7 in Introduction Section
and replace with attached page 7.

July 31, 2007, Modification—On July 31, 2007, the Refinery submitted to the Illinois EPA a response to Notices of Deficiency (NODs) identified by the Illinois EPA during their initial completeness review. The response was prepared so as to incorporate the requested information into the Renewal Application in the appropriate sections. Each modified page is indicated with a revision date of July 31, 2007.

August 10, 2007, Modification—On August 10, 2007, the Refinery submitted a supplemental information package related to the response to NODs submitted on July 31, 2007. This supplemental information package provided a revised list of analytical parameters for groundwater monitoring at the LTF. The revised list includes indicator parameters as well as waste constituents selected based on detections in the past five years of unsaturated zone monitoring at the LTF.

June 3, 2010, Modification—On June 3, 2010, the Refinery submitted a supplemental information package related to specific requests for information from the Illinois EPA. This package provided a new figure for Section K depicting locations of items associated with corrective action (Figure K-2), a new table for Section K listing construction details for wells associated with the Site Wide Groundwater Monitoring Program (Table K-4), and a correction for the Table of Contents for Tables in Section I.

RENEWAL PART B PERMIT APPLICATION
VOLUME 2, TABLE OF CONTENTS

Remove Table of Contents
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RENEWAL PART B PERMIT APPLICATION
VOLUME 2, SECTION I, TABLES

Remove page entitled Tables for Closure and Post-Closure Requirements and replace with attached Tables for Closure and Post-Closure Requirements.

TABLES FOR CLOSURE AND POST-CLOSURE REQUIRMENTS

Tables

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RCRA	Resource Conservation and Recovery Act
RCRIS	RCRA Information System
Refinery	Lemont, Illinois, Refinery
Renewal Application	RCRA Part B Permit Renewal Application
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RGN	Reactivity Group Number
RO	Remediation Objective
RPD	Relative Percent Difference
SCBA	Self-Contained Breathing Apparatus
SCFPU	Special Coker Feed Preparation Unit
SDWA	Safe Drinking Water Act
SG	Specific Gravity
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasures
SPEGL	Short-Term Public Emergency Guidance Level
SPLP	Synthetic Precipitation Leaching Procedure
SR	State Route
STEL	Short-Term Exposure Limit
SVOC	Semivolatile Organic Compound
SW-846	*Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods* (U.S. EPA, Office of Solid Waste, Third Edition)
SWMU	Solid Waste Management Unit
SWPPP	Stormwater Pollution Prevention Plan
TACO	Tiered Approach to Corrective Action Objectives
TCLP	Toxicity Characteristic Leaching Procedure
TLV	Threshold Limit Value
TOC	Total Organic Carbon
TOX	Total Organic Halides
TPH	Total Petroleum Hydrocarbons

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

TRPH	Total Recoverable Petroleum Hydrocarbons
TRMA	Three Rivers Manufacturers' Association
TSDF	Treatment, Storage, and Disposal Facility
TU	Temporary Unit
TWA	Time-Weighted Average
UEL	Upper Exposure Limit
ug	Micrograms
ug/kg	Microgram/kilogram
UHC	Underlying Hazardous Constituent
UIC	Underground Injection Control
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UTL	Upper Tolerance Limit
UTS	Universal Treatment Standard
UZM	Unsaturated Zone Monitoring
VCA	Voluntary Corrective Action
VHF	Very High Frequency
VOC	Volatile Organic Compound
VP	Vapor Pressure
VSI	Visual Site Inspection
WCSA	Waste Container Storage Area
WWTP	Wastewater Treatment Plant
WWTU	Wastewater Treatment Unit
ZOI	Zone of Incorporation

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Remove pages 17 and 18
and replace with the attached pages 17 and 18.

K.4.2.3 Solid Waste Management Units

A detailed discussion of each of the SWMUs identified and addressed in the original RCRA Part B Permit is included in this section along with a discussion of two SWMUs that have been added since the original permit. The discussion of each SWMU contains the following items:

- A detailed description of each SWMU of concern including details such as construction/operating details, types of waste managed at the unit, etc.;
- A scaled drawing showing the location of the unit within the facility (Figure K-1);
- A summary of the investigation/remediation efforts completed to date; and
- A discussion of any investigation/remediation efforts which must still be carried out to complete corrective action responsibilities for the unit.

A summary of each SWMU is provided in Table K-3. A summary of construction details of site wide groundwater monitoring program wells is provided in Table K-4. Figure K-1 is a scaled drawing showing the location for each of the SWMUs mentioned below. Figure K-2 presents locations of items associated with corrective actions as requested by IEPA.

SWMU 1 – Former Empty Drum Storage Area

SWMU 1 was located near the west gate of the Lemont Refinery west of the First Street and Western Avenue intersection. This SWMU was used as a container storage area located outdoors on an asphalt pad. This SWMU was operational from the 1970s until 1980. The pad and stained soils were removed in 1980. The wastes managed in this unit consisted of lubrication oils, but the quantity of wastes stored on the unit is unknown. It is not known if these wastes were considered hazardous wastes or if they contained potential hazardous constituents. There were no known releases in SWMU 1.

A work plan for the soil investigation at SMWU 1 was submitted to the Illinois EPA on October 13, 2001. On January 30, 2004, the Lemont Refinery submitted a "SWMU 1 Investigation" report to the Illinois EPA which detailed the results of the seven soil samples which were collected on November 19, 2001. The Illinois EPA requested that additional pH samples be collected at SWMU 1. The Lemont Refinery collected the two samples on March 11, 2004, and submitted the results to the Illinois EPA on May 6, 2004. After review of the soil investigation report and the additional pH sample data, a No Further Action (NFA) status for this SWMU was issued on June 1, 2004, by the Illinois EPA.

SWMUs 2A to 2E – Former Process Wastewater Line (Big Inch)

SWMUs 2A to 2E, consist of five sumps located within 100 feet of the I&M Canal along the former Process Wastewater Line (also known as the Big Inch). The former Process Wastewater Line extends from the northernmost process unit within the Lemont Refinery to the SWB. Beginning in 1983, the sumps were installed along the line to recover oil entering the line due to backflow when water levels in the SWB were high. The sumps minimized oil seepage from the line. The locations of the sumps are identified along the wastewater line in Figure K-1.

SWMUs 2B to E are operational units: however, in April 1991, process wastewater was removed from the line and only storm water is currently conveyed in the line.

Oily wastewater had been known to seep from the line during periods when the water level in the SWB was high and prevented the sewer line from flowing properly. The amount of wastewater released is unknown. The oily wastewater released potentially contained petroleum hydrocarbon constituents included in the Skinner List. The Skinner List includes constituents which the USEPA identified as potentially present in petroleum refinery wastes. The sumps were installed in 1983 as an interim action for collecting oil. Sampling began in 1981 to identify the source of the oil but a source was not determined. Additionally, in 1984, eleven locations were excavated along the Big Inch in the area of the seepages to investigate the sewer line, but no obvious defects were discovered. Oil absorbent booms were placed in the I&M Canal to contain any seepages that occurred.

According to the Group Phase I/II RFI Work Plan, the information gathered indicated that the source of contamination at the sumps was likely oil from the former API Separator (SWMU 3) in the North Plant. Since the separator was removed in 1984, a continuing source of constituents is no longer present. A release to soil was unlikely because the release was at or below the water table; therefore groundwater was the primary media of concern.

On March 26, 2004, a RCRA Streamlined Category A SWMU Work Plan was submitted to the Illinois EPA. Category A SWMUs were defined as locations where a release from a SWMU may have the potential of reaching the I&M Canal due to its proximity or that do not have existing hydraulic controls, or where there are currently no institutional controls or engineered barriers. SWMUs 2A to 2E were considered to be Category A SWMUs and were addressed in the March 26, 2004, submittal. The RCRA Streamlined Category A SWMU Work Plan proposed that one soil sample be taken adjacent to each sump, for a total of five soil samples. If a soil sample could not be

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Remove page entitled Tables for Corrective Action and replace with attached Tables for Corrective Action.

TABLES FOR CORRECTIVE ACTION

Tables

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Insert the attached Table K-4 after Table K-3.

TABLE K-4. MONITORING WELL AND PIEZOMETER COMPLETION DATA SUMMARY
LEMONT REFINERY, LEMONT, ILLINOIS (MAY 2010)

Well/ Piezometer	Date Drilled	Grade Elevation (ft-msl)	Stick Up Height (ft)	Measuring Point Elevation (ft-msl)	Total Depth (ft-bgs)	Screened Interval (ft-bgs)	Diameter (inches)
SWMU 3							
GQ-MW-3A	5/18/2006	589.04	2.87	591.91	18.50	8.0 - 18.0	4
GQ-MW-3B	5/22/2006	589.27	2.82	592.09	32.50	21.50 - 31.50	4
SWMU 19B							
GQ-MW-4	5/22/2006	590.25	2.49	592.74	18.00	7.50 - 17.50	4
SWMU 31A							
GQ-MW-5	5/31/2006	595.76	Flush Mounted	595.76	21.00	10.5 - 20.5	4
SWMU 31B-E							
GQ-MW-6	5/19/2006	594.56	2.60	597.16	18.00	7.5 - 17.5	4
GQ-MW-7	5/18/2006	593.44	3.17	596.61	18.00	7.5 - 17.5	4
GQ-MW-10	12/17/2007	592.08	2.14	594.22	21.00	10.0 - 20.0	4
SWMU 43J							
GQ-MW-8	5/24/2006	594.16	2.68	596.84	18.50	7.5 - 17.5	4
GQ-MW-9	5/16/2006	594.86	3.00	597.86	18.00	7.5 - 17.5	4
SWMU 30							
GQ-MW-11	12/17/2007	593.71	2.35	596.06	21.00	9.7 - 19.7	4
GQ-MW-12	12/17/2007	593.94	2.34	596.28	21.00	10.2 - 20.2	4
SITE-WIDE WELLS							
MW-101	5/21/2001	726.10	2.90	729.00	158.00	151 - 156	2
MW-102	5/24/2001	690.70	2.85	693.55	122.00	115 - 120	2
MW-103	5/31/2001	644.80	3.56	648.36	74.00	69.0 - 74.0	2
MW-104	6/4/2001	597.00	2.27	599.27	27.00	22.0 - 27.0	2
MW-105A (N)	6/5/2001	587.90	3.29	591.19	19.00	13 - 18	2
MW-105A (S)	6/5/2001	587.90	3.12	591.02	33.00	28.0 - 33.0	2
MW-106A	6/6/2001	587.20	2.60	589.80	18.00	12.0 - 17.0	2
MW-106B	6/6/2001	587.20	2.71	589.91	33.00	27.0 - 32.0	2
MW-107	6/6/2001	588.10	2.95	591.05	19.00	13.0 - 18.0	2
MW-108A	6/7/2001	589.00	2.69	591.69	20.00	14.0 - 19.0	2
MW-108B	6/7/2001	589.00	2.58	591.58	35.00	29.0 - 34.0	2
MW-109A	6/7/2001	587.90	2.93	590.83	19.00	13.0 - 18.0	2
MW-109B	6/7/2001	587.90	2.94	590.84	33.00	28.0 - 33.0	2
MW-110	6/11/2001	592.60	2.66	595.26	24.00	18.0 - 23.0	2
MW-111	9/22/2004	NA	NA	594.08	15.00	10 - 15	2
MW-112	9/8/2004	NA	NA	590.24	18.50	7.5 - 17.5	2
MW-113	10/5/2004	NA	NA	589.15	16.00	6 - 11	2
MW-114	9/8/2004	NA	NA	600.68	15.00	10 - 15	2
MW-115R	5/3/2006	592.30	2.29	594.59	19.40	7.5 - 17.5	4
MW-116	10/5/2004	NA	NA	607.33	16.00	10 - 15	2
MW-117	9/21/2004	NA	NA	598.44	14.50	9 - 14	2
MW-118	9/30/2004	NA	NA	737.03	151.00	140 - 145	2
MW-119	12/17/2007	613.72	1.86	615.58	21.00	10.0 - 20.0	4
MW-120	12/17/2007	676.26	2.49	678.75	68.00	57.0 - 67.0	4
MW-121	12/17/2007	724.87	2.29	727.16	111.00	100.0 - 110.0	4
MW-122	12/17/2007	595.64	2.14	597.78	21.00	10.0 - 20.0	4
SITE WIDE PIEZOMETERS							
PZ-1A	5/20/1993	593.87	Flush Mounted	293.52	20.00	18.0 - 20.0	2
PZ-2A	5/21/1993	593.17	Flush Mounted	592.81	20.00	18.0 - 20.0	2
PZ-3	5/26/1993	595.33	Flush Mounted	594.81	20.00	18.0 - 20.0	2
PZ-3A	5/21/1993	593.62	Flush Mounted	593.29	21.00	19.0 - 21.0	2
PZ-10	5/23/2006	585.19	2.91	588.10	16.00	5.5 - 15.5	2
PZ-11	5/24/2006	589.49	Flush Mounted	589.49	24.00	13.5 - 23.5	2
PZ-13	5/30/2006	592.62	Flush Mounted	592.62	21.00	10.5 - 20.5	2
PZ-15	5/25/2006	591.23	Flush Mounted	591.23	18.00	7.5 - 17.5	2
PZ-16	5/23/2006	588.69	2.72	591.41	22.50	11.5 - 21.5	2
PZ-17	12/17/2007	592.47	2.40	594.87	21.00	10.0 - 20.0	2
GROUNDWATER RECOVERY WELLS							
GRW-1	5/10/2006	588.07	2.64	590.71	24.40	13.9 - 23.9	5
GRW-2	5/22/2006	589.52	3.11	592.63	18.00	7.5 - 17.5	5
GQ-MW-2A**	5/22/2006	589.10	2.64	591.74	18.00	7.5 - 17.5	4

ft-msl Feet above mean sea level
ft-bgs Feet below ground surface
* No well construction log available
** Well GQ-MW-2A is functioning as a monitoring well and is also subject to a groundwater recovery system pilot study

TABLE K-4. MONITORING WELL AND PIEZOMETER COMPLETION DATA SUMMARY
LEMONT REFINERY, LEMONT, ILLINOIS (MAY 2010)

Well/ Piezometer	Date Drilled	Grade Elevation (ft-msl)	Stick Up Height (ft)	Measuring Point Elevation (ft-msl)	Total Depth (ft-bgs)	Screened Interval (ft-bgs)	Diameter (inches)
LAND TREATMENT FACILITY (LTF):							
PIEZOMETERS							
B-01	10/31/1987	NA	2.50	695.20	108.30	102 - 107	2
B-02	10/28/1987	NA	2.50	697.06	110.00	101 - 106	2
B-03	10/23/1987	NA	2.50	712.07	121.20	116 - 121	2
B-04	11/4/1987	NA	2.50	683.34	97.50	90 - 95	2
B-05	12/21/1987	NA	2.40	688.49	101.00	95 - 100	2
B-06	12/1/1987	NA	2.50	700.46	110.00	104 - 109	2
B-07	12/5/1987	NA	2.50	705.12	114.00	108 - 113	2
B-08	12/12/1987	NA	2.40	707.45	114.00	108 - 113	2
B-09	12/17/1987	NA	2.50	693.17	107.00	99 - 104	2
B-10	1/12/1988	NA	2.40	713.46	123.50	117 - 122	2
B-11	11/23/1987	NA	2.50	721.09	128.00	122 - 127	2
B-12	10/27/1987	NA	2.50	723.29	132.50	126 - 131	2
B-13	11/16/1987	NA	2.50	718.26	125.50	119 - 124	2
B-14	10/14/1987	NA	2.50	686.08	96.50	91 - 96	2
B-15	10/22/1987	NA	2.50	721.13	132.60	127 - 132	2
B-16	11/2/1987	NA	2.50	719.63	122.30	116 - 121	2
B-17	10/16/1987	NA	2.50	727.02	130.00	123 - 128	2
B-18R	12/17/2007	707.23	2.57	709.80	121.00	110.0 - 120.0	2
MONITORING WELLS							
UA-1	11/22/1988	715.30	2.50	718.80	104.40	92.1 - 102.1	2
UA-2	1/6/1989	689.70	2.50	692.24	82.00	70.0 - 80.0	2
UA-3	12/23/1988	694.90	2.80	697.73	86.60	74.7 - 84.7	2
UA-4	12/19/1988	693.10	2.90	695.98	84.00	72.1 - 82.1	2
UA-5	12/5/1988	691.90	2.90	694.84	95.50	72.1 - 87.1	2
UA-6	12/14/1988	698.30	3.50	701.76	91.00	79.0 - 89.0	2
GROUNDWATER MANAGEMENT ZONE (GMZ) AND STORM WATER BASIN (SWB):							
MONITORING WELLS							
GMZ-1	7/27/1994	589.79	3.40	593.25	21.10	6 - 16	2
GMZ-2	7/25/1994	595.29	2.80	598.16	18.33	4.5 - 14.5	2
GMZ-3	7/28/1994	594.10	2.70	596.81	17.31	7.0 - 17.0	2
GMZ-4	7/29/1994	593.98	2.10	596.08	18.90	5.5 - 15.5	2
GMZ-5	7/26/1994	591.16	2.00	593.19	14.50	4.0 - 14.0	2
GMZ-6*	7/26/1994	590.72	1.95	592.67	14.70	4.0 - 14.0	2
SWB-1	12/4/1990	590.42	2.01	592.43	24.20	14 - 24	2
SWB-2	12/5/1990	586.87	2.03	588.90	28.00	15 - 25	2
SWB-3	12/7/1990	586.55	1.98	588.53	19.60	8.5 - 18.5	2
SWB-4	12/6/1990	587.86	1.87	589.73	49.70	44.5 - 49.5	2
SWB-5	12/6/1990	587.83	2.14	589.97	18.00	8 - 18	2
SWB-6*	9/8/1992	NA	NA	589.28	NA	16 - 26	2
SWB-7*	9/1/1992	NA	NA	589.14	NA	17 - 27	2
SWB-8*	1/29/1993	NA	NA	588.95	NA	10 - 20	2
PIEZOMETERS							
P-01*	5/7/1991	NA	NA	598.35	NA	30 - 40	1
P-02*	5/15/1991	NA	NA	593.36	NA	13 - 23	1
P-03*	5/21/1991	NA	NA	593.23	NA	14 - 24	1
P-04*	5/23/1991	NA	NA	592.96	NA	14 - 24	1
P-05*	5/22/1991	NA	NA	593.10	NA	47 - 54	1
P-06*	5/24/1991	NA	NA	594.18	NA	10 - 20	1
P-07A*	8/26/1992	NA	NA	592.68	NA	12 - 22	1
P-08*	5/9/1991	NA	NA	592.68	NA	15 - 25	1
P-09*	5/13/1991	NA	NA	589.95	NA	11 - 21	1
P-10*	5/14/1991	NA	NA	588.98	NA	14 - 24	1
P-11*	5/13/1991	NA	NA	592.72	NA	15 - 25	1
P-12*	5/9/1991	NA	NA	591.01	NA	20 - 30	1
P-13*	5/8/1991	NA	NA	590.82	NA	45 - 50	1
P-14*	7/28/1991	590.88	2.33	593.21	NA	12.0 - 22.0	1
P-15*	7/27/1994	587.43	2.00	589.43	NA	10.0 - 20.0	1
CORRECTIVE ACTION PROGRAM WELLS:							
SWMU 2A-E							
GQ-MW-1A	5/12/2006	589.33	2.94	592.27	18.00	7.5 - 17.5	4
GQ-MW-1B	5/17/2006	589.38	2.83	592.21	32.00	21.5 - 31.5	4
GQ-MW-2A**	5/22/2006	589.10	2.64	591.74	18.00	7.5 - 17.5	4
GQ-MW-2B	5/22/2006	588.99	2.66	591.65	32.00	21.0 - 31.0	4

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Remove page entitled Figures for Corrective Action and replace with attached Figures for Corrective Action.

FIGURES FOR CORRECTIVE ACTION

Figure

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Add attached Figure K-2 after Figure K-1.